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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,440

09/17/2003

David M. Skinlo

Q137-US7

7319

31815 7590 07/31/2008

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EXAMINER

LEE, CYNTHIA K

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

07/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/665,440	Applicant(s) SKINLO, DAVID M.	
	Examiner CYNTHIA LEE	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 66-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 66-79 is/are rejected.
- 7) ☒ Claim(s) 72 and 73 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/12/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Partial Withdrawal of Appeal

In view of the IDS filed on 2/12/2008, PROSECUTION IS HEREBY REOPENED.

New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Information Disclosure Statement

The Information Disclosure Statement (IDS) filed 2/12/2008 has been placed in the application file and the information referred to therein has been considered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent

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and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 66 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 81 of copending Application No. 10/665860. in view of Gartstein (US 2002/0001745) All features of claim 66 in the instant application are claimed by claim 81 of the compending application, except for the "second cap". Gartstein teaches a battery with a second cap 22 in fig. 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the battery of the copending application with a second cap for the benefit of making the bottom the battery a second terminal.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 66 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 80 of copending Application No. 10/666873. in view of Gartstein (US 2002/0001745) All features of claim 66 in the instant application are claimed by claim 81 of the compending application, except for the "second cap". Gartstein teaches a battery with a second cap 22 in fig. 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the battery of the copending application with a second cap for the benefit of making the bottom the battery a second terminal.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 66, 74, 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gartstein (US 2002/0001745) in view of Chang (US 4863815).

Refer to fig. 3. Gartstein discloses a method of constructing an electric storage battery comprising positioning an electrode assembly in a case, the electrode assembly including a first electrode strip and a second electrode strip wound around a pin so as to form a spiral roll, the pin being in electrical communication with the first electrode strip;

fastening a second end cap to the case such that a tab 19 provides electrical communication between the second electrode strip and the second cap.

Gartstein discloses fastening a first end cap to the case, but does not disclose such that the pin extends through the first end cap (Applicant's claim 66). Chang teaches an electrically conductive terminal pin extending through battery lid (see 6 in fig. 1). It would have been obvious to one of ordinary skill in the art to extend the terminal pin through the end cap of the battery of Gartstein, as taught by Chang, for the benefit of extracting the current of the battery directly from the current collector instead of through the positive terminal.

Regarding claims 74 and 75, the end cap includes an insulator 24 (fig. 3) and is surrounded by the conductive member 16.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry (US 3510353) as applied to claim 66, in view of Nemoto (US 6387561).

McHenry discloses all the elements of claim 66 and are incorporated herein. McHenry does not disclose that the mandrel includes a channel and injecting an electrolyte through the channel. Nemoto teaches that the electrolyte is injected through the hole 7 of the core 6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to inject the electrolyte of McHenry through a hole through the core of the battery, as taught by Nemoto, for the benefit of distributing the electrolyte from the center. Distributing the electrolyte from the center of the battery would allow for even distribution of the electrolyte in a cylindrical can.

Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gartstein (US 2002/0001745) in view of Chang (US 4863815) as applied to claim 66, in view of Coibion (US 4053687).

Gartstein modified by Chang teaches all the elements of claim 66 and are incorporated herein. Gartstein modified by Chang does not teach welding the tab against the second cap. Coibion teaches of welding a connection part 20 connecting the electrode to the cover 5, in which the cover is a terminal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to weld the bottom plate 19 to the bottom cap 18 of Gartstein for the benefit of providing good electrical contact between the electrode and the terminal.

Claims 69-71, 76-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gartstein (US 2002/0001745) in view of Chang (US 4863815) as applied to claim 66, in view of Klein (US 4476624)

Gartstein modified by Chang teaches all the elements of claim 66 and are incorporated herein. Gartstein modified by Chang does not teach a mandrel on a pin. Klein teaches a novel mandrel comprised of an elongated longitudinally deformed metal strip and a compression element adapted to fit within the deformity of the metal strip. Preferably the metal strip is of a uniform enclosing configuration such as of a "U" or "C" shaped cross section and the compression element is preferably a solid plastic rod (applicant's claim 78). During the construction of the cell an electrode such as lithium

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with separator elements on both sides thereof is placed within the deformity with the compression element compressing and fixedly positioning the electrode into the deformity of the mandrel (Applicant's claim 70). The compression element is then locked into position such as by crimping the mandrel therearound to positively hold the electrode in place during subsequent winding (applicant's claim 71). With an anode metal electrode such as of lithium, a percut opening in the separator element adjacent the mandrel permits contact and cold welding between the anode metal and the mandrel during the compression step. Refer to 1:65-2:5). Klein teaches that an inserting element 20 (or pin) is lowered (or inserted) into the mandrel 10 (2:55-57) (Applicant's claim 79). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the mandrel and pin configuration of Klein to the battery of Gartstein for the benefit of tightly gripping the electrode during the winding of the battery.

Allowable Subject Matter

Claims 72 and 73 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Closest prior art is Klein. Klein does not disclose "welding mandrel to the pin" (claim 72) and "wherein the mandrel is positioned on the pin such that the mandrel is in

electrical communication with the pin" (claim 73). The mandrel and pin of Klein are not welded because the mandrel is the anode terminal and the pin is formed of plastic.

Response to Arguments

Applicant's arguments filed in the Reply Brief filed 2/12/2008 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA LEE whose telephone number is (571)272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Cynthia Lee/

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795